

Fifteen clutches of eggs were found during the study period, first in June 1999 and later in December 1999 (Table 2). They had been laid near the roots of trees or shrubs, and in areas that had scanty leaf litter cover (*c.* 2 mm; average depth of litter in enclosure = 53.45 mm). The eggs had been deposited in a chamber dug in the ground and covered up with earth. Mean nest dimensions were 13.6 cm (depth) x 8.5 cm (width). On candling the June clutches, most eggs were found to be infertile or dehydrated, some had rudimentary, but disintegrating embryos. The only egg with an intact embryo was monitored in the laboratory, but after 46 days, it cracked open to reveal a fully-developed, rotting embryo. Oviposition was observed for the first clutch laid on December 4, 1999 at 1735 hrs, and the behavioural sequence is given below:

0 mins – (Female was seen sitting near the root of a tree throughout the day.) Female cleared leaf litter away with hind legs using small, slow movements.

09 mins – She excavated a hole and lowered her posterior

end towards it. The carapace covered the hole completely, and hence actual oviposition could not be seen.

20 mins – She moved the hind legs alternately towards the tail, covering the eggs with earth and compacting it by pressing with hind legs. This continued for another 29 mins.

50 mins – She finished covering the nest and walked away. The nest was excavated and measured. Four white, hard-shelled eggs covered by a thin layer of mucus were found along with an older desiccated egg.

Substrate temperature recorded at 1700 hrs was 22.9° C.

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14. FURTHER NOTES ON BREEDING COLOUR IN MALE *CALOTES VERSICOLOR*¹

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The Indian Garden Lizard *Calotes versicolor* is one of the commonest arboreal lizards in Rajasthan. It can be seen everywhere, scaling rough-barked trees, especially *Acacia nilotica* and *Prosopis cineraria*. During the non-breeding season, males are brown or sand grey above, uniform or with a pattern of spots and bars on the back and the sides (Daniel 2002), but as the breeding season commences (late summer to early monsoon), males acquire a brilliant crimson or scarlet colour on the forehead and the shoulders. Black patches also appear upon the neck, the cheeks and on the throat (Smith 1935; Tikader and Sharma 1992; Daniel 2002; Sharma 1998, 2001).

Two colour morphs have been recognized in the male *C. versicolor* in Rajasthan (Sharma 2001). Individuals,

confined to the southern end of Rajasthan (Udaipur) differ in colour pattern from those in the northern part (Jaipur). The major difference is seen in the extent of its black patch. The black patch in the southern form is confined to the neck region, just touching the swollen cheeks and far from the tympanum, while in the northern form the broader black patch extends up to the swollen cheeks and passes below the tympanum. Both morphs have blackish lower eyelids, but the black is more prominent in the southern morph.

During a recent survey, a third colour morph was found in north-east Rajasthan (Alwar). During the breeding season, the males of this area attain a scarlet colour on the head, gular pouch and dorsal side. Black colour appears on the trunk and forelimb, extends towards the anterior half of its belly and

disappears just near the lumbar zone. No black patch is present on the lower eyelid. Alternate whitish and blackish bands are present on the dorsal side of the distal end of the tail. This colour form seems larger than the other two colour forms.

It is a well-established fact that, just after mating, males lose their scarlet coloration quickly, but the black patches remain (Sharma 1998). From May 7, 2002 to June 14, 2002, while studying the colour pattern of the male *C. versicolor* on the Alwar-Behror Road in Alwar district, many trampled specimens were observed and it was found that males lose

their breeding colours after death. Although a light tinge of scarlet colour can be seen after death, no black colour is visible.

Photographic evidence for the morphs has been provided.

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15. RECORD OF *BOIGA BEDDOMEI* (WALL 1909) FROM SRIHARIKOTA, ANDHRA PRADESH, INDIA¹

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On March 30, 2004, while carrying out herpetofaunal sampling in Sriharikota, Andhra Pradesh, we recorded a greenish cat snake in a Casuarina plantation. The plantation, raised as a shelter belt, was c. 300 m from the Bay of Bengal. The average tree height was 19 m, with about 90% canopy and 100% litter cover. The snake was recorded under a huge pile of palm leaves accumulated under a *Borassus flabellifer* tree with a fallen Casuarina tree heaped with dense accumulated litter and a 3.5 m shrub to the side of the pile.

Sriharikota is a spindle shaped island (c. 181 sq. km), situated largely in the Nellore district of Andhra Pradesh (with a portion of its southern part in Tiruvallur district of Tamil Nadu), bounded on the east by the Bay of Bengal and on the west, north and south by the Pulicat lake (461 sq. km). The island is acknowledged to have one of the last, largest, and best-preserved patches of Tropical Dry Evergreen Forest in India (Sastry and Rao 1973; Blasco and Legris 1973; Meher-Homji 1974). Beside its natural forest, the island has plantations of Eucalyptus, Casuarina and Cashew, covering 21% of the landmass. The island has been under the control of the Indian Space Research Organisation (ISRO) since the

early 1970s, while the forest and its wildlife are protected. The nearest major forest to Sriharikota is the Eastern Ghats, running about 100 km to the west.

The snake was 88 cm in total length with a snout-vent length of 68.6 cm. The dorsal region was dull green with distinct black horizontal bars. The throat was white with a yellow border, and the entire ventral region was deep yellow. A dark streak ran from the back of the eye to the neck. The eyes were large, with a greenish-brown iris and a black, vertical pupil. It had 8 supralabials with the 3rd, 4th and 5th touching the eye; body scale row of 19:19:13; ventrals 248, and 106 subcaudals. (Some of the body measurements are: eye = 3.22 mm; distance between eye & nostril = 3.22 mm; distance between nostril and snout = 1.88 mm; head length = 18.27 mm and head width = 12.7 mm). Voucher specimen was deposited in the BNHS Collection (Regn. No. BNHS 3343).

The snake was identified as *Boiga beddomei* (Wall 1909), supposedly endemic to the Western Ghats and Sri Lanka (Smith 1943). The species was not listed in the faunal list of the eastern region of India, which includes *B. forsteni* (Dumeril,